CORNELL UNIVERSITY

NEW YORK STATE VETERINARY COLLEGE

1947-1948

NEW YORK STATE VETERINARY COLLEGE

FACULTY

EDMUND EZRA DAY, Ph.D., LL.D., President of the University.
GRANT SHERMAN HOPKINS, B.S., D.Sc., D.V.M., Professor of Veterinary Anatomy, Emeritus.
DENNIE HAMMOND UDALL, B.S.A., D.V.M., D.Sc., Professor of Veterinary Medicine, Emeritus.
EARL SUNDERVILLE, D.V.M., Professor of Veterinary Anatomy, Emeritus.
WILLIAM ARTHUR HAGAN, D.V.M., M.S., D.Sc., Professor of Veterinary Bacteriology, and Dean of the College.
HOWARD J. MILKS, D.V.M., Professor of Veterinary Therapeutics and Small Animal Diseases, Head of the Department of Therapeutics and Small Animal Diseases, and Director of the Small Animal Clinic.
JAMES NATHAN FROST, D.V.M., Professor of Veterinary Surgery, Head of the Department of Surgery, and Director of the Surgical Clinic.
RAYMOND RUSSELL BIRCH, B.S.A., D.V.M., Ph.D., Professor of Veterinary Research, and Superintendent of the Veterinary Experiment Station.
HENRY HUGH DUKES, B.S., D.V.M., M.S., Professor of Veterinary Physiology, Head of the Department of Physiology, and Secretary of the Veterinary Faculty.
MYRON GUSTIN FINCHER, D.V.M., M.S., Professor of Veterinary Medicine, Head of the Department of Medicine, and Director of the Ambulatory Clinic.
PETER OLAFSON, D.V.M., M.S., Professor of Veterinary Pathology, and Head of the Department of Pathology and Bacteriology.
MALCOLM EUGENE MILLER, B.S. in Agr., D.V.M., M.S., Ph.D., Professor of Veterinary Anatomy, and Head of the Department of Anatomy.
CHARLES ERNEST HAYDEN, A.B., D.V.M., Professor of Veterinary Physiology.
HERBERT LESTER GILMAN, D.V.M., M.S., Ph.D., Professor of Veterinary Research.
HADLEY CARRUTHERS STEPHENSON, B.S., D.V.M., Professor of Veterinary Therapeutics and Small Animal Diseases.
ARTHUR GORDON DANKS, B.S. in Agr., D.V.M., Professor of Veterinary Surgery.
PINCUS PHILIP LEVINE, B.S., D.V.M., M.S., Ph.D., Professor of Poultry Diseases.
JOSEPH A. DYE, A.B., Ph.D., Professor of Physiology.
DONALD WYCKOFF BAKER, B.S.A., D.V.M., Ph.D., Professor of Veterinary Parasitology.
JAMES M. MURPHY, V.M.D., Professor of Veterinary Medicine.
*ALEXANDER ZEISSIG, B.S.A., D.V.M., M.S., Ph.D., Associate Professor of Veterinary Bacteriology.
WILLIAM H. EWING, A.B., M.A., Acting Associate Professor of Bacteriology.
STEPHEN J. ROBERTS, D.V.M., M.S., Associate Professor of Veterinary Medicine and Obstetrics.
EARL N. MOORE, B.S., D.V.M., Associate Professor of Poultry Diseases.
————— —————, Associate Professor of Veterinary Anatomy.
GEORGE K. KIESEL, B.S., D.V.M., Acting Assistant Professor of Veterinary Medicine and Obstetrics.
SETH DARWIN JOHNSON, D.V.M., Assistant Professor of Veterinary Medicine.
————— ————————, Assistant Professor of Poultry Diseases.
JOHN H. WHITLOCK, D.V.M., M.S., Assistant Professor of Veterinary Parasitology.
JAMES H. GILLESPIE, V.M.D., Assistant Professor of Poultry Diseases.
CHARLES G. RICKARD, D.V.M., M.S., Assistant Professor of Clinical Pathology.
WILLIAM MORRIS EVANS, D.V.M., Director of the Diagnostic Laboratory.
————— ————————, Assistant in Poultry Diseases.

*Leave of absence.

JOHN D. WHEAT, D.V.M., Medical Interne in Surgical Clinic.
ROBERT A. FIELD, D.V.M., Medical Interne in Small Animal Clinic.
ROBERT G. SCHIRMER, D.V.M., Medical Interne in Small Animal Clinic.
ROGER W. BATCHELDER, D.V.M., Medical Interne in Surgical Clinic.
———— ————, Research Assistant in Veterinary Medicine.
———— ————, Assistant in Veterinary Research.
A. D. RANKIN, D.V.M., M.S., Assistant in Veterinary Physiology.
CLARENCE P. ZEPP, JR., D.V.M., Assistant in Veterinary Pathology.
DELBERT G. MCKERCHER, B.V.Sc., M.A., Assistant in Veterinary Bacteriology.
LOUISE A. MCBEE, B.S., M.A., Assistant in Veterinary Bacteriology.
JULIUS FABRICANT, B.S., V.M.D., M.S., Assistant in Poultry Diseases.
JOHN LEAHY, Assistant in Veterinary Anatomy.
ESTHER L. MCCANDLESS, B.S., M.S., Assistant in Physiology.
———— ————, Assistant in Veterinary Bacteriology (Part time).

FIELD STAFF

HARRY G. HODGES, D.V.M., Supervising Veterinarian, Mastitis Program (Ithaca.)
KENNETH FRANKLIN HILBERT, D.V.M., Director of Poultry Disease Laboratory. (Farmingdale.)
FRANCIS I. REED, D.V.M., Field Veterinarian, Mastitis Program. (East Aurora.)
EDGAR A. TUCKER, D.V.M., Field Veterinarian, Mastitis Program. (Kingston.)
HOWARD J. BLY, D.V.M., Field Veterinarian, Mastitis Program. (Canton.)
———— ————, Field Veterinarian, Mastitis Program. (Farmingdale.)
CLEMENT I. ANGSTROM, D.V.M., Director of Laboratory, Poultry Disease Program. (Kingston.)
GRAYSON B. MITCHELL, D.V.M., Director of Laboratory, Poultry Disease Program. (East Aurora.)
———— ————, Field Veterinarian, Turkey and Duck Program.

MEMBERS OF OTHER FACULTIES WHO TEACH VETERINARY STUDENTS

JOHN K. LOOSLI, Ph.D., Professor of Animal Nutrition.
JOHN IVAN MILLER, Ph.D., Professor of Animal Husbandry.
GLENN WADE SALISBURY, Ph.D., Professor of Animal Husbandry.
KENNETH L. TURK, Ph.D., Professor of Animal Husbandry.
JOHN PETER WILLMAN, Ph.D., Professor of Animal Husbandry.
HAROLD ELLIS ROSS, M.S. in Agr., Professor of Dairy Industry.
EDWARD SEWALL GUTHRIE, Ph.D., Professor of Dairy Industry.
HOWARD B. ADELMANN, Ph.D., Professor of Histology and Embryology.
WILLIAM A. WIMSATT, Ph.D., Assistant Professor of Zoology.
CORNELIUS K. CAIN, Ph.D., Assistant Professor of Chemistry.

COUNCIL FOR THE NEW YORK STATE VETERINARY COLLEGE

EDMUND E. DAY, *Chairman*
CHESTER C. DUMOND
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WILLIAM A. HAGAN
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JOE R. HANLEY
ROBERT E. TREMAN
EARL SUNDERVILLE
ALBERT L. BROWN
EARL B. CLARK
ERNEST DANN
WALTER D. WAY
GEORGE H. HOPSON
NEWELL HUTCHINSON
ERWIN V. MOORE

SPECIAL LECTURERS, 1946–1947

Altman, I. E., veterinary practitioner, *Brooklyn, N. Y.;* Beaudette, F. R., Poultry Pathologist, Agricultural Experiment Station, *New Brunswick, N. J.;* Bishopp, F. C., Department of Agriculture, *Washington, D. C.;* Blakely, C. L., The Angell Memorial

Animal Hospital, *Boston, Mass.;* Broad, R. H., Health Officer, *Ithaca, N. Y.;* Darby, R. N. Gordon, veterinary practitioner, *Somerville, N. J.;* De Rocha, Lima, Institute of Pathology and Parasitology, *Sao Paulo, Brazil;* Dikmans, G., Bureau of Animal Industry, Beltsville Research Center, *Beltsville, Md.;* Downey, Charles, Tompkins County Board of Supervisors, *Dryden, N. Y.;* Eddy, C. O., Division of Research, Niagara Sprayer and Chemical Co., *Middleport, N. Y.;* Gassner, F. X., Division of Veterinary Medicine, Colorado State College, *Ft. Collins, Colo.;* Hansen, H. E., veterinary practitioner, *Ballston Spa, N. Y.;* Henderson, J. A., Department of Animal Pathology and Hygiene, University of Illinois, *Urbana, Ill.;* Hopson, George H., Milk Sanitarian, De Laval Separator Co., *New York, N. Y.;* Howe, I. G., Bureau of Animal Industry, Department of Agriculture and Markets, *Albany, N. Y.;* Hutt, F. B., Department of Poultry Husbandry, Cornell University; Juliand L. N., veterinary practitioner, *Greene, N. Y.;* Krill, W. R., College of Veterinary Medicine, The Ohio State University, *Columbus, Ohio;* Leonard, E. P., veterinary practitioner, *Summit, N. J.;* Leonard, M. M., veterinary practitioner, *Asheville, N. C.;* McKinney, R. A., County Veterinarian, *Dryden, N. Y.;* Mettler, F. A., College of Physicians and Surgeons, Columbia University, *New York, N. Y.;* Milks, Clifford H., veterinary practitioner, *Newark Valley, N. Y.;* Neal, Paul A., U. S. Public Health Service, *Washington, D. C.;* Perkins, J. E., Division of Communicable Diseases, Department of Health, *Albany, N. Y.;* Schwardt, H. H., Department of Entomology, Cornell University; Shepard, H. H., Department of Entomology, Cornell University; Showacre, E. C., Department of Preventive Medicine, Cornell University; Smith, Ora, Finger Lakes Kennel Club, *Ithaca, N. Y.;* Stevens, G. G., veterinary practitioner, *Groton, N. Y.;* Stone, C. E., veterinary practitioner, *Penn Yan, N. Y.;* Taggert, R. S., Sanitary Corps, Army of the United States, *Utica, N. Y.;* Taylor, E. L., Veterinary Laboratory, Ministry of Agriculture, *Weybridge, England;* Trayford, A. E., veterinary practitioner, *Huntington, N. Y.*

THE FOUNDING OF THE COLLEGE

The New York State Veterinary College was established by act of the State Legislature in 1894: "There is hereby established a State Veterinary College at Cornell University," Laws of New York, 1894, p. 307. By action of the Board of Trustees of Cornell University, June 10, 1894, the location of the College upon the University campus was authorized. It was further enacted that while the University does not undertake any financial responsibility for the buildings, equipment, or maintenance of the College, it does consent to furnish instruction upon such subjects as are or shall be in its curriculum, upon such terms as may be deemed equitable.

By further acts of the Legislature provision was made for the buildings, equipment, and maintenance of the College and finally, in 1897, by "An act to provide for the administration of the State Veterinary College, established by Chapter 153 of the laws of 1894," the Trustees of Cornell University were intrusted with its administration.

OBJECTS OF THE INSTITUTION

As stated in the act to provide for the administration of the State Veterinary College: "The State Veterinary College, established by Chapter 153 of the laws of 1894, shall be known as the New York State Veterinary College. The object of said Veterinary College shall be: To conduct investigations as to the nature, prevention, and cure of all diseases of animals, including such as are communicable to man and such as cause epizootics among live stock; to investigate the economic questions which will contribute to the more profitable breeding, rearing, and utilization of animals; to produce reliable standard preparations of toxins, antitoxins, and other productions to be used in diagnosis, prevention, and cure of diseases, and in the conducting of sanitary work by approved modern methods; and to give instruction in the normal structure and function of the animal body, in the pathology, prevention, and treatment of animal diseases, and in all matters pertaining to sanitary science as applied to live stock and correlatively to the human family."

The New York State Veterinary College was founded to raise the standards of veterinary investigation and instruction to the level of the most recent advances in biology and medicine. According to the 1940 census of the United States the number of farm animals in the State, exclusive of poultry and pet animals, was 3,021,000, of the value of $178,025,000. This gives some idea of the great financial interest at stake in the matter of live stock. The census report for 1940 gives the value of the live stock of the United States on farms exclusive of pet animals at $5,181,951,000. The value of poultry in New York State is $13,553,000. Another consideration is that the normal permanent fertilization of the soil is dependent upon the live

stock kept, and that where there is a deficiency of animals, the productiveness of the land is steadily exhausted; therefore, the health and improvement of animals and the fostering of animal industry lie at the very foundation of our national wealth. Another and no less potent argument for the higher standard of veterinary education is its influence on the health of the human race. With a long list of communicable diseases which are common to man and beast, it is to the last degree important that measures for the extinction of such contagion in our live stock should receive the best attention of the most highly trained experts.

To justify the liberality of the State in creating this seat of learning, it is the aim of the College to train thoroughly a class of veterinarians for dealing with all diseases and defects that depreciate the value of our live stock, and with the causes that give rise to them. It further aims, as far as it has the means and opportunity, to maintain a center of investigation looking toward discoveries in the nature of diseases, in therapeutics, and in the immunization of animals from contagion; and toward the production of biological products to be employed in diagnosis, treatment, and immunization. So much has been discovered recently in these directions and present knowledge points so unmistakably to coming discoveries, that to neglect this field at the present time would be very unfortunate. Furthermore, it is the purpose of the College to be of as much assistance as possible to the practitioners of veterinary medicine.

SITUATION

The New York State Veterinary College is situated at Ithaca, a city of 21,000 population, at the head of Cayuga Lake, 263 miles from New York City, on the Lehigh Valley and Lackawanna Railroads. The College buildings are near the center of the campus of Cornell University.

BUILDINGS

The College is housed in six principal buildings forming a quadrangle. All of these except the latest are of buff pressed brick; the main portion of the recently constructed Moore Laboratory is of native seam-face limestone.

The main building (James Law Hall) is a three-story building facing East Avenue across a small park. The first floor is largely occupied by the College Museum. Several offices, including that of the College Secretary where students should register, are also found on this floor. The greater part of the second floor is occupied by the laboratories and offices of the Veterinary Experiment Station. A part of the second floor, the third floor and the basement contain the laboratories of the Department of Physiology.

The north wing of this building consists of two stories and houses the laboratories and classrooms of the Department of Anatomy. The south wing contains the office of the Dean and the business

offices on the first floor, and the College library on the second. In the rear of this wing is a large auditorium.

The Veranus A. Moore Laboratory of Pathology was completed and equipped in 1938. It is the most complete and best-equipped structure of its kind in America. It is an L-shaped building of three stories and a basement. The basement contains the operating machinery for the refrigeration plant, the elevator and the other services, a feed storage room, a cool room for storing paraffin tissue blocks, and a student locker and lounging room. The first floor contains two lecture rooms, two suites of rooms for the general and poultry diagnostic laboratories, respectively, offices and, in the rear, quarters for large experimental animals. The second floor is devoted to the offices and laboratories of pathology. Two undergraduate teaching laboratories, a teaching museum, preparation and slide storage rooms, a photographic unit, a seminar room, and a number of offices and individual research laboratories are found in the main portion of this floor. In the rear, opening on a terrace at the level of the clinic buildings is a large autopsy room, fitted with the most modern of equipment, including a hydraulic table for large animals, smaller tables for small animals, a large refrigeration room, and a small laboratory. The third floor is devoted to bacteriology. Two teaching laboratories, a chemial laboratory, a media kitchen and sterilizing unit connected by an electric dumbwaiter to the laboratories on the first and second floors, and a number of offices and individual research laboratories occupy the greater part of this floor. In the rear are the quarters for small experimental animals.

The Small Animal, the Medical, and the Surgical Buildings form a group, commonly called the Clinical Buildings. They are three stories in height and face Garden Avenue overlooking Alumni Field.

The Small Animal Building contains a large, modern operating room, drug rooms, x-ray room, and kennels and cages for patients. There are a number of wards for infectious diseases and skin diseases. The offices, laboratories, and examining rooms of the clinic are found on the second floor, and the laboratories for therapeutics and pharmacy on the third.

The Medical Building contains, on the ground floor, a clinic hall, a drug room, a physical examination room for large animals, wards for patients, and a garage for the cars of the Ambulatory Clinic. The second floor contains wards for patients, a lecture room, a clinical, diagnostic, and research laboratory, and offices. The third floor contains an apartment for the groom and rooms for the internes. A loft provides storage space for hay and grain. A freight elevator provides means of handling feed and large-animal patients.

The Surgical Building contains, on the ground floor, two isolation wards for horses and cattle and a demonstration hall. The second floor contains a completely equipped shop for the teaching of horseshoeing. The third floor is used for classrooms and a museum.

The Surgical Ward is situated behind the Surgical Building. It is

two stories high and is devoted almost entirely to stalls for large-animal, surgical patients. At the south end of this building is the Operating Pavilion, a large operating room equipped with stocks, a hydraulically controlled operating table, and the necessary sterilizing equipment and surgical instruments for aseptic surgery.

The Experiment Station Farm is situated about two and one-half miles east of the Campus and consists of one hundred thirty-three acres. On this farm there are two well-equipped, steam-heated laboratory buildings, one for poultry disease investigation, the other for research in parasitology. There is also a building for the breeding of small experimental animals, a work shop, six barns for cattle, two for swine, one for horses, and numerous small isolation buildings. Several residences for staff members complete the list of buildings.

LIBRARIES AND MUSEUMS

The Veterinary College not only has a good special library of its own, the Roswell P. Flower Library, but it also enjoys the free use of the University Library and other college libraries containing more than 900,000 volumes and over 2,500 current periodicals and transactions of societies. Its own museum, moreover, is supplemented by other University museums, among which, of particular value to the College, are those of vertebrate and invertebrate zoology (including entomology), agriculture, botany, and geology.

The Roswell P. Flower Library

The College is fortunate in having the Flower Veterinary Library, containing over 16,000 volumes and 130 current periodicals, second to no other special veterinary library in the country. This library is made up of two collections, a small one purchased with state funds, and the main collection purchased with the proceeds of a fund begun by Roswell P. Flower in 1897 with a gift of $5,000 to the University for the use of the Veterinary College. Four thousand dollars of this gift was used immediately for the purchase of books, leaving $1,000 as a source of income. This sum was increased, first in 1900 by $10,000 given by Mrs. Flower, and in 1929 by about $8,000 added largely through the efforts of Dr. Frank H. Miller, for many years trustee of the University.

Besides texts in the fields covered by the curriculum and related subjects, the library carries over a hundred American and foreign periodicals and receives pertinent publications from all other important colleges and experiment stations. The University also deposits a number of special periodicals and handbooks in this library, which increases its serviceability.

The library is in the south wing of James Law Hall with stack room and spacious reading room open from 9:00–5:00. In the main reading room are the current numbers of periodicals—veterinary and medical—the catalogue, indexes, reference books, and texts bearing especially

on class work. In an adjoining room are the stacks, which are generally open to the students.

Books may be drawn for home use as from the University and Agricultural libraries. These libraries and the Chemistry library are also accessible to Veterinary students and extend their opportunities in the fields of general and special literature. The library also borrows books or microfilms from several of the largest medical libraries, thus opening to research workers the main collections of medical literature in the country.

ADMISSION

No student may be admitted to the Veterinary College who has not secured a Veterinary Student Qualifying Certificate from the New York State Education Department. Correspondence about this certificate should be addressed to the Chief, Bureau of Professional Examinations, State Education Department, Albany, New York.

The requirements for this certificate are stated as follows:

"*Veterinary Medicine.* The preliminary education requirement for admission to the study or practice of veterinary medicine shall be one year of study in a registered college of liberal arts and sciences, or the equivalent. The required year of college study shall include approved courses in English, chemistry, and general biology or zoology covering at least one academic year each. Approved courses covering one academic year shall in each case be substantially equivalent to six semester credit hours."

The *year of study* has been interpreted as meaning the passing of one-fourth as many semester credit units as are required by the particular institution for its baccalaureate degrees. Most institutions require 120 units, but some require 124, and even 128. At least 30 units must be presented, therefore, and in some instances 31 or 32. A *registered* college is one which is registered with, and its curriculum is approved by, the New York State Education Department. All colleges within New York State which are authorized to grant baccalaureate degrees are registered and approved. This is not true, however, of all such institutions outside of New York State. In general, practically all of the larger colleges and universities are registered. If in doubt as to whether any particular school is registered, please address correspondence to the State Education Department and not to this College.

The approval forms which are returned to applicants by the State Education Department should be filed with the Director of Admissions, McGraw Hall, Ithaca, N. Y. Certificates are never sent to applicants but to the University when requisition is made for them.

The *Farm Practice Requirement* formerly could be met during summer vacations after admission to the College. This requirement has been increased and at least one-half of the experience must now be obtained prior to admission. A total of 20 farm practice points is required, of which at least 10 must be for experience with live-

stock. A minimum of 10 points, including not less than five for livestock, must be presented to qualify for admission. By livestock, farm animals are meant. Dogs and cats are not included and not more than 3 points may be claimed for experience with poultry.

Farm practice points are awarded on the basis of tests administered by the Department of Farm Practice, New York State College of Agriculture, Ithaca, N. Y. Except for students who have previously been enrolled in the College of Agriculture and whose farm practice scores are available to it, the Committee on Admissions of the Veterinary College will estimate the experience of all candidates. All who are admitted without farm practice ratings in the Department of Farm Practice will be required to take the tests after admission and all who are found to be deficient will be required to make up their deficiencies during the first two summer vacations while they are in college.

Applicants who have been raised on farms where livestock are kept should easily meet all requirements. Those who are not farm-raised will have to spend at least three months as a full-time farm worker with some responsibility for farm animals to qualify for admission. The full requirements can hardly be met by less than six months of such experience. Little credit will be given for experience obtained before the age of 14 years.

This requirement is applicable only to male students; nevertheless female applicants will improve their chances of acceptance by acquiring as much experience with farm animals and farm life as they can get.

Whenever possible, prospective applicants are urged to obtain the full experience required before submitting their applications. In a highly competitive situation, those who have the full requirements will have an advantage over those who have only the minimum.

The applicant should write as early as possible to the Director of Admissions of Cornell University, Ithaca, New York, requesting the application forms for admission to the Veterinary College. The Director of Admissions will require a transcript of the applicant's college record; hence the candidate should procure two transcripts, one for the Education Department at Albany, and the other for the University.

The number of students that can be admitted annually is limited. It is likely that the number of applicants who meet the scholastic requirements will exceed the number that can be accepted. In this case a Committee on Admissions of the faculty of the Veterinary College will select those to be admitted after considering not only the formal preparation but also the available evidence bearing on each applicant's character, seriousness of purpose, and fitness for the work that he proposes to undertake. This committee will require a personal interview, whenever this is feasible.

Priority of application is not necessarily a determining factor in the selection of students to be admitted; nevertheless, the gathering and

weighing of the necessary evidence require time, and, as the committee will begin filling the eligible list early in the spring, it is advantageous to the candidate to file his application early. Students who have not completed the work required for the Veterinary Student Qualifying Certificate but expect to do so prior to July 1 may apply and the committee will act on the application provisionally. June 1 is the latest date for filing applications.

RULES GOVERNING ADMISSION

Applicants for admission must not only satisfy the entrance requirements but must also comply with certain rules of the University as follows:

1. Every candidate for admission to an undergraduate course of study must file with his application at the Office of Admissions either a certificate of good moral character or, if he has attended some other college or university without graduating from it, a certificate of honorable dismissal from it.

2. Every candidate for admission must deposit twenty-five dollars with the University. Candidates are warned not to send cash through the mails. A check, draft, or order should be payable to *Cornell University* and should be sent to the Office of Admissions, Cornell University, Ithaca, N. Y., not later than June 1.

If the candidate matriculates, the deposit will be credited to his account, $10 for the matriculation fee, $1 for an examination-book fee, and $14 as a guaranty fund, which every undergraduate student is required to maintain and which is to be refunded upon his graduation or permanent withdrawal, less any indebtedness to the University.

If admission is denied a candidate, the deposit is refunded in full.

A candidate may withdraw the application for admission, but a charge of $10 is regularly made for accrued expenses unless the application is withdrawn and a refund of the deposit in full is claimed before the due date. If an application is not withdrawn until after the due date, but is withdrawn before August 31, the $10 charged for accrued expenses is deducted and $15 of the deposit is refunded. No refund is made to an applicant who withdraws the application after August 31.

3. Every student matriculating in the University is required to present to the Director of Admissions a satisfactory certificate of vaccination against smallpox; this certificate to be considered satisfactory only if it certifies to a successful vaccination within five years before the date of entrance or certifies that at least three unsuccessful attempts at vaccination have been made within the same period. The certificate should reach the *Director of Admissions* not later than August 1.

ADMISSION TO ADVANCED STANDING

Applicants for admission to advanced standing as members of the second, third, or fourth-year class must present the necessary educational qualifications for admission to the first-year class, and must pass satisfactory examinations in all the work for which they desire advanced credit, or offer satisfactory certificates of the completion of this work in other schools whose entrance requirements and courses of study are equivalent to those of this college. No person will be admitted to any advanced class except at the beginning of the college year in September.

ADMISSION TO GRADUATE STUDY

Graduates of this College or other colleges may enter the Graduate School of Cornell University and pursue work in the Veterinary College and allied departments of the University. A prospective graduate student should consult the *Announcement of the Graduate School* and apply to the Dean of the Graduate School.

ADVANCED WORK AND RESEARCH

The Veterinary College, alone or in combination with other departments of the University, offers advanced students excellent opportunities for study and investigation. Its situation gives it abundant and varied material for research, and it has ample facilities for the prosecution of such work. It encourages graduate and advanced students to carry on independent investigations. Courses of study especially adapted to advanced work and research will be found among those listed on page 20.

SEMINARS

The several departments of the College hold seminars or special conferences for their advanced and graduate students. The seminar hears reports of the results of investigations and the progress of knowledge in its particular field; discusses methods of advanced and independent work such as are expected of those who are preparing theses or prosecuting any special investigation; and hears the reports of the students on the progress of their work. By means of the seminar the student incidentally gains facility in public speaking and fits himself to take a creditable part in the meetings of veterinary or medical societies.

STUDY FOR PRACTITIONERS

The very rapid advances made during recent years in veterinary science and in facilities and methods for teaching it, as well as the advantage to be gained by studying a given subject under more than one teacher, make it highly desirable that busy practitioners should be enabled as far as possible to increase their personal knowledge by means of study at such times as they can leave their practices. The New York State Veterinary College wishes to supply this want so far as practicable and offers every facility at hand to accomplish this end.

Veterinarians who are legally authorized to practice at their places of residence will be admitted to any class in the College at any time and for such period as they may elect, without entrance examinations. They will be wholly free to elect any studies that are being regularly taught at the time, and will be granted all opportunities and facilities offered to regular students so long as these privileges do not interfere with the instruction of the regular students. No tuition will be required from licensed veterinarians practicing in the State of New York. Those taking laboratory courses will be required to pay fees to

cover the cost of the material used. Every practicable facility will be offered for special study along desired lines. A study of page 20 will enable a practitioner to determine in advance precisely what work will be in progress at a given date.

This work is offered to veterinarians entirely for the benefit they may derive from increased knowledge in veterinary science and does not contemplate the granting of a degree, certificate, or other evidence of responsibility on the part of the College.

General inquiries in reference to this work should be addressed to the Dean, whereas questions relating to studies in the various departments may be addressed to the heads of the departments concerned.

COMBINED COURSES

Students in the College of Agriculture and in the College of Arts and Sciences of Cornell University may, by a judicious selection of courses, not only obtain the B. S. or A. B. degree but acquire one year's advanced credit in the Veterinary College. The D. V. M. degree may then be obtained after three additional years. Students who wish to follow this course should plan their courses from the very beginning toward this end. They may apply for admission to the Veterinary College at any time after the admission requirements have been met, even though they may not be ready until one or two years later to begin their work.

REGISTRATION

Every student is required to register with the Registrar of the University at the beginning of each term. See the Calendar on the inside of the front cover for the exact day. After completing that registration, he must register on the same day with the Secretary of the Veterinary College, Dr. Dukes, at Room 4, on the first floor of the main building of the College. After being admitted to the University no student is allowed to register after the close of the regular registration day except by special permission.

FOREIGN STUDENTS

A member of the University's staff whose duty is to look after the welfare of students coming from outside the United States is Mr. Donald C. Kerr, Counselor to Foreign Students. They are invited to apply to him for any information they need and to consult him about personal problems, social questions, or difficulties of any kind. His office is at the Cornell Cosmopolitan House, 301 Bryant Avenue, which has living and dining accommodations for a group of foreign and American students. It is suggested that foreign students write to him before they come to Ithaca, or call on him when they arrive here. He will be glad to meet them at the train, help them find suitable living quarters, either at the Cosmopolitan House or elsewhere, and assist them with introductions.

TUITION AND OTHER FEES

Tuition. For students not residents of the State of New York the tuition in the Veterinary College is one hundred fifty dollars a term, payable at the beginning of each term as printed on the registration coupons. Tuition is free to residents of the State of New York. The law governing the administration of the College provides that "no tuition fee shall be required of a student pursuing the regular veterinary course who for a year or more immediately preceding his admission to said veterinary college shall have been a resident of this State." A limited number of tuition scholarships are available to nonresidents; see Tuition Scholarships, page 17.

Students are advised to consult the *General Information Number* for the University's rules regarding the payment of tuition and other fees.

Laboratory Fees. The laboratory fee for students in the Veterinary College is $18 a term.

A Matriculation Fee of $11 and a chest radiograph fee of $2 is required of every student upon entrance into the University; these fees must be paid at the time of registration. A new undergraduate student who has made the required deposit of $25 with the Treasurer need not make an additional payment of these fees, because the Treasurer will draw on the deposit for them.

An Administration Fee of $8.50 a term is required, at the beginning of each term, of every student.

An Infirmary Fee of $10 a term is required of every student at the beginning of each term.

A Willard Straight Hall Membership Fee of $5 a term is required, at the beginning of each term, of every student. Its payment entitles the student to a share in the common privileges afforded by the operation of Willard Straight Hall, subject to regulations approved by the Board of Managers of the Hall. The use of the Hall is restricted to those who have paid this fee.

A Physical Recreation Fee of $5 is required at the beginning of each term of every undergraduate man and woman. Its payment entitles the student, either to the use of the Gymnasium and the University Playgrounds and to the use of a locker, with bathing facilities and towels, in the Gymnasium, Barton Hall, or the Schoellkopf Memorial Building, or else to the use of the women's gymnasium, recreation rooms, and playgrounds, and to the use of a locker if that is necessary.

A Graduation Fee is required, at least ten days before the degree is to be conferred, of every candidate for a degree. For the first or baccalaureate degree the fee is $10; for an advanced degree it is $10. The fee will be returned if the degree is not conferred.

Tuition and other fees become due when the student registers. The University allows twenty days of grace after the last registration

day of each term. The last day of grace is generally printed on the registration coupon which the student is required to present at the Treasurer's office. Any student who fails to pay his tuition charges, other fees, and other indebtedness to the University, or who, if entitled to free tuition, fails to claim it at the Treasurer's office and to pay his other fees and indebtedness, within the prescribed period of grace, is thereby dropped from the University unless the Treasurer has granted him an extension of time to complete payment. For such extension the student is assessed a fee of $2. A fee of $5 is charged for the late payment where no extension has been granted.

A tuition fee or other fee may be changed by the Trustees at any time without previous notice.

CHARGES FOR MINOR DELINQUENCIES

Every student is held personally responsible for any injury done by him to any of the University's property.

Assessments, charged to the student's account and payable at the Treasurer's office, are levied upon the student in certain circumstances, under the following rules of the University:

A matriculated student desiring to register after the close of registration day shall first pay a fee of $5. [Students in the Graduate School are excepted.]

A student desiring to file his registration of studies after the date set by his college for filing the same shall first pay a fee of $2.

A student desiring to take an examination or other test for the removal of a term condition (including the making up of a mark of "absent" or "incomplete") shall first pay a fee of $2 for each examination or other test.

A student desiring to make an appointment for the required medical examination or conference after twenty days from the last registration day of the term shall first pay a fee of $2.

For reasons satisfactory to the proper authority any of the above-mentioned assessments (except that levied for examination or other test to remove a condition) may be waived in any individual case if the student's failure to comply with the regulation was due to ill health or to other reason beyond his control. Application for such a waiver should be made to the Dean of the college enrolling the student, or in the case of the medical examination, to the chairman of the Faculty Committee on Health.

SCHOLARSHIPS

University Scholarship for Graduates. One University Graduate Scholarship of the value of $200 is offered annually to a graduate in veterinary medicine. This scholarship is open to graduates of all veterinary schools having requirements for graduation equivalent to those of this College. Applications may be made by graduates or seniors in good standing and should be filed with the Dean of the Graduate

School on or before March 15 of the academic year preceding the one for which application is made.

Tuition Scholarships. The trustees have authorized a limited number of scholarships, each of an annual value of $300, the amount of the annual tuition, to be awarded each year by the Veterinary College. The scholarships are awarded to undergraduate students who are of sufficiently high promise or standing in the judgment of the faculty, who are not residents of New York State, and who have had, before entering, two or more years of college or university training. Each student holding a scholarship must maintain a standing satisfactory to the Veterinary Faculty.

(In recent years the number of New York State applicants has been much greater than can be accommodated. For this reason the number of out-of-state students admitted has been limited and tuition scholarships are rarely awarded. Only those who have extraordinary qualifications and a real need of financial assistance are likely to be considered seriously for these scholarships.)

Valentine Mott Knapp Scholarship. This annual scholarship of the value of $400 was established through the will of David V. Knapp as a memorial to his brother, Dr. Valentine Mott Knapp, '04. By action of the Faculty, the award is to be made for one year to a qualified applicant at the completion of his third year's work. Students who wish to be considered for the scholarship should make application for it to the Dean not later than May 1. In awarding the scholarship, the Faculty will take into consideration the following points: ability of the applicant to do creditable academic work, personal characteristics of the applicant with respect to professional attitude, and financial need.

PRIZES

Cornell University has a considerable number of funds given for the endowment of prizes to be awarded annually. Some of these prizes are open to competition by students of the University generally. The University publishes a list of them under the title PRIZE COMPETITIONS, a copy of which will be mailed on request addressed to Cornell University Official Publication, 124 Roberts Place, Ithaca, New York. Prizes open to competition only by students of the Veterinary College are as follows:

The Borden Veterinary Scholarship Award was established by the Borden Company Foundation, Inc., in 1945. It consists of an annual award of $300 to be made to the member of the fourth-year class in Veterinary Medicine who attained the highest scholastic record in all his veterinary studies prior to his final year. The award will be paid to the recipient during the fall term of his final year. In the event that the Dean finds it inappropriate to make the award in any one year, the award may be deferred, but only one award shall be made in any succeeding year.

The Horace K. White Prizes, established by Horace K. White of Syracuse, are awarded annually to meritorious students in the graduating class of the College. They consist of a prize of $75 to the first in merit and a prize of $25 to the second in merit.

The Jane Miller Prize of $40 in physiology is awarded to the student or students doing the best work in this subject. This prize is usually divided into a first prize of $25 and a second prize of $15 and awarded at the end of the third year.

The James Gordon Bennett Prize of $40 is offered to members of the graduating class. The award is based upon work in the clinics giving evidence of the ability of the recipient to handle diseased animals humanely. Special emphasis is laid upon the ability of the student to apply effectively local and general anesthesia.

The Anne Besse Prize of $40 is awarded in the principles and practice of veterinary medicine. This award is based upon work in the clinics giving evidence of ability in clinical diagnosis.

The Charles Gross Bondy Prizes. Two annual prizes are awarded to the two fourth-year students who rank highest in proficiency in the courses of practical medicine and surgery of small animals. The first prize is $25 and the second prize is $15.

The Merry Prize in Anatomy. This prize is bestowed by Dr. Albert E. Merry, '06, as a memorial to his father, Addison D. Merry. This prize is usually divided into a first prize of $30 and a second prize of $20. It is awarded at the end of the second year to the student or students doing the best work in this subject.

The Mary Louise Moore Prize in Bacteriology. This prize was established by a bequest from Dr. Veranus A. Moore in honor of his wife. Dr. Moore was a member of the original faculty of the Veterinary College. He was Professor of Pathology, Bacteriology, and Meat Inspection from 1896 to 1926, and Dean of the Veterinary College from 1907 to 1929.

The proceeds of the endowment ($40) may be awarded each year upon recommendation of the Head of the Department of Pathology and Bacteriology and with the approval of the Dean of the College either as a prize to students who have done the best work in the Department or a subsidy to encourage individual research work of students by defraying expenses of their experiments.

The Poultry Disease Prize. This prize was established by Dr. Nathan Wernicoff, '31 and Dr. Tevis Goldhaft, '35, of Vineland, N. J. for the purpose of stimulating interest in diseases of poultry. The prize consists of $50 for the best composition or essay, or for the best original work reported, by a member of the fourth-year class. Competing papers must be submitted not later than the first week of the second term of the college year to the Dean who will appoint a suitable committee to read them and to make recommendations on the award.

The award will not be made if, in the judgment of the committee, none of the papers submitted are considered to be sufficiently meritorious.

The Alpha Psi Prize. This prize is given by Beta (Cornell) Chapter of the Alpha Psi Fraternity. It was suggested by the donors that this prize be "awarded by the faculty to a member of the fourth-year class who has shown by his scholarship, personality, character, and breadth of interest that he is capable of elevating the prestige and expanding the services of veterinary science in practice, in education, and in its relationship to community, state, and national welfare."

New York State Veterinary Medical Society Prizes. These annual prizes, established by the New York State Veterinary Medical Society, consists of three cash awards of the value of $25, $15, and $10, respectively. They are awarded to members of the third and fourth-year classes who present and have approved the best case reports for publication in the organ of the Society, "Veterinary News." The award year extends from May 1 to April 30. All case reports to be considered must be received at the Dean's office by the latter date. Each case report must be reviewed and approved for publication by the head of the department in which the case was received, studied, and treated, or by a person in the department designated by him. After the case report is approved for publication, two typewritten copies must be presented to the Dean's office. One copy will be sent to the editor of "Veterinary News", the other will be placed on file. Case reports published jointly by several authors are acceptable. No limit is placed on the number of case reports presented by a student.

EXPENSES

Living expenses in Ithaca vary from $16 to $20 a week. Books, instruments, stationery, etc., cost about $50 a year.

THE RULE GOVERNING STUDENT CONDUCT

The University's rule governing the conduct of students is this: "A student is expected to show both within and without the University unfailing respect for order, morality, personal honor, and the rights of others." The authority to administer this rule and to impose penalties for its violation is vested in the University Committee on Student Conduct. The rule is construed as applicable at all times, in all places, to all students of the University. A student may at any time be removed from the University if, in the opinion of the Committee on Student Conduct, his presence is not conducive to the University's best interests.

PRESCRIBED FOUR-YEAR COURSE

Leading to the Degree of Doctor of Veterinary Medicine (D. V. M.)

REQUIREMENTS FOR GRADUATION

In order to receive the degree of Doctor of Veterinary Medicine (D. V. M.), candidates must satisfy all the entrance requirements (see page 10), must successfully pursue the courses named in the following Curriculum, must have paid all due fees, and must have spent at least one year in residence.

The work of the College is arranged to begin late in September and to close in June. The academic year is divided into two terms. See the Calendar on the inside of the front cover.

At the conclusion of each term the Veterinary Faculty will review the records and conduct of students. Unsatisfactory students will be dropped from the College.

THE CURRICULUM

In the following summary of the curriculum, the figure in the first column after the name of the course is the number of the course and refers to a description on one of the following pages, 22–34; the figures in the second and third columns indicate the hours of credit given for the successful pursuit of the several courses in either term. The abbreviation "Req." indicates that a course, or its equivalent, is required for graduation but that no formal credit is given for the course.

FIRST YEAR

	Course Number	*Credit Fall term*	*Credit Spring term*
Anatomy	1	7	—
Anatomy	2	—	7
Histology and Embryology	6	4	4
Organic Chemistry	375	5	—
Animal Husbandry	1	3	—
Physiological Chemistry	11	—	6
Physiology	12	—	3
Military Science		Req.	Req.
Physical Training		Req.	Req.
Total		19	20

SECOND YEAR

Physiology	13	3	—
Experimental Physiology	14	3	—
Bacteriology and Immunology	43	4	—
Bacteriology and Immunology Laboratory	43a	5	—
General Pathology	40	2	—
General Pathology Laboratory	40a	2	—

	Course Number	Credit Fall term	Credit Spring term
Special Pathology	41	—	2
Special Pathology Laboratory	41a	—	3
Animal Genetics	124	—	3
Therapeutics and Pharmacy	20	—	6
Parasitology	62	—	3
Parasitology Laboratory	62a	—	1
Animal Husbandry	10v	—	4
Total		19	22

THIRD YEAR

Food Quality Control	48	6	—
General Surgery	30	4	—
Surgical Exercises	31	1	—
Infectious Diseases	42	3	—
Diseases of Large Animals	50	5	3
Diseases of Small Animals	21	3	—
Botany	3	1	—
Applied Anatomy	3	1	—
Applied Anatomy	4	—	1
Surgical Exercises	23	—	1
Obstetrics	51	—	5
Special Surgery	32	—	5
Diseases of Poultry	46	—	3
Roentgenology	27	—	1
Applied Parasitology	63	—	1
Clinical Orientation	201	Req.	Req.
Total		24	20

FOURTH YEAR

Diseases of Large Animals	52	2	4
Diseases of Small Animals	22	3	—
Jurisprudence	3	—	1
Clinical Conferences	202	Req.	Req.
*Clinics	203	Req.	Req.

*Clinics will be held all day, Monday through Friday, beginning at 9 A.M.; on Saturday until 1 P.M.

COURSES OF INSTRUCTION

In the following pages a list of the teaching departments of the College is given. Under each department heading, brief descriptions of the courses offered will be found. Most of these courses are a part of the veterinary curriculum; a few are elective to veterinary students, or are given primarily for graduate students or students of other colleges of the University.

The clinics are operated by several departments. A brief statement about the particular clinical work of each department concerned will be found in the general description of the activities of that department. A general statement of the operation of the clinics, with courses and numbers, is given under a special heading following the departmental descriptions.

Finally there is a listing of courses given by other colleges as a part of the veterinary curriculum.

Courses Offered by the Veterinary College

ANATOMY

Professor, M. E. Miller; *Associate Professor*, ————————; *Assistant*, John Leahy.

The instruction in anatomy is by lectures, recitations, and laboratory work, the last being by far the most important. The objects of the lectures are to present facts of general morphology as related to the horse and other domestic animals; to direct attention, as far as possible, to the correlation of structure and functions of the various organs of the body; and to emphasize the anatomical relations of those parts most subject to surgical operations. The main reliance, however, is placed upon the work done in the laboratory. Thorough, practical knowledge of anatomy can be acquired in no other way, and every student, before taking his final examination, will be required to dissect all parts of the horse or the ox, and such parts of other domestic animals as may prove most expedient.

The courses in anatomy extend over four terms. During the first year the students cover the anatomy of the horse, dog, and cow. The third year is given over to the study of applied anatomy. These courses deal with the special regions of the domestic animals most often encountered in surgery and obstetrics.

In the study of the osseous, muscular, digestive, and respiratory systems, the skeletons in the laboratory and the Auzoux models afford valuable assistance. In the museum there are accumulating series of specimens which illustrate, in a typical manner, some of the more important anatomical features of the various domestic animals.

1. *ANATOMY.* First year, fall term. Credit seven hours. Lecture, T 9. Laboratory, M 8–11, 2–4:30; T 10–1; W 8–10; Th 10:30–1; S 8–11. Laboratory fee, $12. Professor Miller and assistants.

2. *ANATOMY.* First year, spring term. Credit seven hours. Lecture, M 9. Laboratory, M 10–12; T 2–4:30, W 9–12, Th 2–4:30; F 9–12, S 9–10:30. Laboratory fee, $10. Professor Miller and assistants.

3. *APPLIED ANATOMY.* Third year, fall term. Credit one hour. Laboratory, Th 10–12:30 or S 10–12:30. Professor Miller.

4. *APPLIED ANATOMY.* Third year, spring term. Credit one hour. Laboratory, W 2–4:30 or F 2–4:30. Professor Miller.

6. *ADVANCED ANATOMY.* Fall or spring term. Credit and hours to be arranged. This course is designed to give students who have completed Courses 1 and 2 the opportunity to carry on advanced work in veterinary anatomy. Laboratory fee, $4. Professor Miller.

PHYSIOLOGY

Professors, H. H. DUKES, C. E. HAYDEN, J. A. DYE; *Assistants*, A. D. RANKIN, ESTHER L. MCCANDLESS.

Three fields of activity are covered in the work of the department: animal physiology, human physiology, and physiological chemistry. The department is well equipped for teaching and research in these fields.

Courses 11, 12, 13, and 14 are designed primarily for students in Veterinary Medicine and are required of them. However, if space is available, other qualified students will be admitted, but permission to register must be obtained. The other courses are not a part of the veterinary curriculum.

10. *ANIMAL PHYSIOLOGY.* Spring term. Credit three hours. A course of lectures or recitations arranged especially for students of agriculture, but open to others. Students taking this course should be familiar with the first principles of chemistry. M W F 10. Professor HAYDEN.

11. *PHYSIOLOGICAL CHEMISTRY.* First year, spring term. Credit six hours. Lectures and recitations, T Th S 8. Laboratory, M W F 2–4:30. Professor HAYDEN and Dr. RANKIN. Laboratory fee, $12.00, deposit, $5.00.

A course in physiological chemistry, including the elements of biophysical chemistry. A part of the course will be devoted to a study of the normal chemical constituents of the blood and urine, and the quantitative determination of such as have been found most important in physiological and clinical studies.

12. *PHYSIOLOGY.* First year, spring term. Credit three hours. Lectures, demonstrations, and recitations on blood and lymph, circulation, respiration, digestion, and absorption. The action of drugs (pharmacodynamics) will be considered where possible. M W F 8. Professor DUKES.

13. *PHYSIOLOGY.* Second year, fall term. Credit three hours. Lectures, demonstrations, and recitations on excretion, metabolism, heat regulation, endocrine organs, muscle and nerve, central nervous system, senses, and reproduction. The action of drugs will receive attention where possible. M T W 9. Professors DUKES and DYE.

14. *EXPERIMENTAL PHYSIOLOGY.* Second year, fall term. Credit three hours. Special emphasis is placed on mammalian physiology. A part of the course is devoted to pharmacodynamics. Laboratory, M 10–12:30, F 8–1; or W 10–12:30, S 8–1. Laboratory fee, $18. Professor DUKES and Dr. RANKIN.

16. *ADVANCED EXPERIMENTAL PHYSIOLOGY.* Spring term. Credit three hours. Prerequisites, Course 12 or 13, or its equivalent, and Course 14, or its equivalent. Registration by permission. Labora-

tory, F 9–1. A conference hour to be arranged. Laboratory fee, $10. Professors DUKES and DYE.

17. *SPECIAL PROBLEMS IN CHEMICAL PHYSIOLOGY.* Both terms. This course will be adapted to the needs of students and will consist of laboratory work, conferences, collateral readings, and reports. Registration by permission. Hours and credit to be arranged. Laboratory fee, $2 a credit hour. Professor HAYDEN.

18. *RESEARCH.* Both terms. Hours to be arranged. For graduates only. Professors DUKES, HAYDEN, and DYE.

303. *HUMAN PHYSIOLOGY.* Either term. Credit three hours. An introductory course designed particularly for students who intend to take only one course in physiology, for those who are preparing to teach biology in secondary schools, and for those who desire a general knowledge of the physiological processes of the human body. Lectures, demonstrations, and discussion periods. M W F 10. *Moore Laboratory* 101. Professor DYE.

305. *ENDOCRINOLOGY AND METABOLISM.* Fall term. Credit three hours. Prerequisite, six or more hours each of biology and chemistry. M W F 8. *Moore Laboratory.* Professor DYE.

306. *LABORATORY IN PHYSIOLOGY.* Spring term. Credit three hours. Registration by permission. *James Law Hall.*

Special emphasis is placed on human physiology. Discussion period, W 4:15. Laboratory, M F 2–4:30. Laboratory fee, $10. Professor DYE and assistants.

PATHOLOGY AND BACTERIOLOGY

Professors, PETER OLAFSON, W. A. HAGAN, P. P. LEVINE; *Associate Professors*, ALEXANDER ZEISSIG, E. N. MOORE; *Assistant Professors*, J. H. GILLESPIE, C. G. RICKARD, ————; *Laboratory Director*, W. M. EVANS; *Assistants*, C. P. ZEPP, JR., D. G. MCKERCHER, LOUISE A. MCBEE, JULIUS FABRICANT, ————, ————.

The laboratories of the department are well equipped with modern apparatus providing opportunity for advanced work, for those students who are properly prepared, in pathological anatomy, autopsy work, pathogenic bacteriology, and immunity. The department operates two diagnostic laboratories, one for poultry diseases and the other for general diagnostic work, to which a great deal of pathological material and blood samples for serological testing comes from all parts of the State. These laboratories furnish an abundance of fresh materials for teaching work and for research in animal diseases. The clinics and the routine autopsies also furnish material.

The following courses are required in the curriculum of the Veterinary College and are given particularly for veterinary students. When there is room for them, properly prepared students of other

colleges will be admitted, but permission to register must be obtained in each case.

40. *GENERAL PATHOLOGY.* Second year, fall term. Credit two hours. Prerequisite, Zoology 6 (Histology and Embryology) or equivalent. In addition it is desirable that the student shall have had at least one year's work in anatomy and physiology. In special cases of students who are majoring in biology and expect to take no further work in pathology, these prerequisites may be waived in part. When this is done, the course will not be accepted as a prerequisite for other courses. T Th 10. Professor OLAFSON.

40a. *GENERAL PATHOLOGY LABORATORY.* Second year, fall term. Credit two hours. Course 40 must be taken simultaneously or have been completed previously. Section I, M F 10–12:30. Section II, W S 10–12:30. Laboratory fee, $5. Professor OLAFSON and Dr. ZEPP.

41. *SPECIAL PATHOLOGY.* Second year, spring term. Credit two hours. T Th 8. Prerequisite, course 40a. Professor OLAFSON.

41a. *SPECIAL PATHOLOGY LABORATORY.* Second year, spring term. Credit three hours. Course 41 must be taken simultaneously, or have been completed previously. Work in hematology is included. Section I, M F 2–4:30, Th 10–12:30. Section II, T 10–12:30, W 2–4:30, S 8–10:30. Laboratory fee, $8. Professor OLAFSON and Dr. ZEPP.

42. *INFECTIOUS DISEASES.* Third year, fall term. Credit three hours. M W F 10. Prerequisites, courses 41 and 43. Professor HAGAN.

43. *BACTERIOLOGY AND IMMUNOLOGY.* Second year, fall term. Credit four hours. The course includes general and pathogenic bacteriology and immunology. M T W Th 8. Professor HAGAN.

43a. *BACTERIOLOGY AND IMMUNOLOGY LABORATORY.* Second year, fall term. Credit five hours. Open to students who have taken or are taking course 43 or its equivalent. M T W Th F 2–4:30. Laboratory fee, $20. Professor ZEISSIG.

46. *DISEASES OF POULTRY.* Third year, spring term. Credit three hours. M W 10, M 2–4:30. Prerequisite, course 43a. Professor LEVINE.

48. *FOOD QUALITY CONTROL.* Third year, fall term. Credit six hours. Meat, dairy, and poultry product inspection. Certain parts of the course are given by members of the Poultry Husbandry and Dairy Industry Departments of the College of Agriculture and the Department of Medicine of the Veterinary College. M W F 11, M W F 2–4:30. Professor ZEISSIG and collaborators.

NOTE: The following courses are not a part of the regular veterinary curriculum. Course 170 is given especially for students of poul-

try husbandry in the College of Agriculture. Course 149 is given for those students who have had no work in pathological anatomy. The others are for graduate and advanced undergraduate students. Permission to register must be obtained by all students electing these courses.

149. *PATHOGENIC BACTERIOLOGY.* Credit four hours. T Th 1–4:30. Laboratory fee, $10. Professor ZEISSIG and assistants.

150. *LABORATORY METHODS OF DIAGNOSIS.* Credit one to three hours. Prerequisites, courses 41a and 43a or 149. Hours by appointment. Dr. EVANS.

Instruction and practice in the application of bacteriological, pathological, and serological methods for the diagnosis of disease.

[151. *IMMUNOLOGICAL METHODS.* Not given in 1947–48.]

152. *ADVANCED WORK IN PATHOLOGY, BACTERIOLOGY, OR IMMUNOLOGY.* Fall and spring terms. Credit one to three hours. Hours to be arranged. Laboratory fee, $2 a credit hour. Professors HAGAN, OLAFSON, LEVINE, and ZEISSIG.

Properly prepared students may undertake special problems or receive special assignments.

153. *HEMATOLOGY.* Spring term. Credit one hour. Th 1:40–4. Laboratory fee, $2. Professor OLAFSON.

154. *SEMINAR.* Fall and spring terms. T 4:15. No credit. Required of all graduate students. Undergraduate students are admitted.

170. *POULTRY HYGIENE AND DISEASE.* Fall term. Credit two hours. Prerequisites: Animal Physiology 10 or Human Physiology 303, and General Bacteriology 3. Lectures, Th 1:40–4. Professor GILLESPIE. Special course for students of poultry husbandry.

THERAPEUTICS AND SMALL ANIMAL DISEASES

Professors, H. J. MILKS, H. C. STEPHENSON; *Internes*, R. A. FIELD, R. G. SCHIRMER.

The instruction in this Department consists of lectures, recitations, and laboratory work. The instruction in therapeutics is not limited to the application of medicine to the treatment of diseased conditions, but includes their actions upon the body, including toxicology, official preparations, and prescription writing. The small animal clinic furnishes abundant material for instruction in applied therapeutics of these animals, including the surgical as well as the medicinal. This clinic is run as any small animal practice. The students are assigned to the cases, assist in any operations, and under close supervision have charge of the patients.

20. *THERAPEUTICS AND PHARMACY.* Second year, spring term. Credit six hours. Five lectures and one laboratory period. Laboratory fee, $7.00. Prerequisites, Physiology 13 and 14. Professors MILKS and STEPHENSON.

21. *DISEASES OF SMALL ANIMALS.* Third year, fall term. Credit three hours. Three lectures or recitations. Prerequisite: Special Pathology. Professor STEPHENSON.

22. *DISEASES OF SMALL ANIMALS.* Fourth year, fall term. Credit three hours. Prerequisite: Special Pathology. Professor MILKS.

23. *SURGICAL EXERCISES.* Third year, spring term. Credit one hour.

24. *ADVANCED WORK.* Five or more hours a week throughout the term. Research in the application of drugs in the treatment of disease. Professors MILKS and STEPHENSON.

MEDICINE AND OBSTETRICS

Professor, M. G. FINCHER; *Associate Professor*, S. J. ROBERTS; *Assistant Professors*, S. D. JOHNSON, GEORGE K. KIESEL; *Research Assistant*, ———.

The course in veterinary medicine, principles and practice, extends over the last two years of undergraduate study, the subjects of the second year being distinct from, and complementary to, those of the first. It includes the constitutional, dietetic, and toxic affections and the non-infectious maladies of the different systems of organs—digestive, respiratory, circulatory, urinary, cutaneous, and visual—of the various genera of domestic animals. It also includes a study of the clinical phases of infectious diseases and the disturbances of metabolism.

Our proximity to the city and to a well-stocked agricultural country tends to secure a greater variety of patients than can be had in a large city remote from country flocks and herds. Students take charge of individual cases in the hospital and ambulatory clinic and keep a record of each with treatment. The course also includes instruction in diagnosis. Through the medium of laboratory guides students are expected to acquire a methodical system of examination by repeated systematic observations on both normal and diseased animals. The work involves the use of various special diagnostic methods taught in our own and in other laboratories of the College, such as examination of the blood, milk, urine, and feces, the application of sero-diagnostic methods, etc.

AMBULATORY CLINIC

An ambulatory or out-clinic is conducted for the purpose of giving instruction to students under conditions identical with those encountered in private practice. Proper conveyances and equipment are pro-

vided and an opportunity offered for observing such diseased farm and dairy animals as cannot be entered in the clinics of the College. The student thereby not only has an opportunity to see cases not readily brought to the College clinic, but also assists in handling cases in the same manner and under the same environment as are required of the country practitioner. As the vicinity of Ithaca is largely devoted to dairying, valuable clinical material relating to obstetrics and the diseases of dairy cows is available and is extensively used.

50. *DISEASES OF LARGE ANIMALS.* Third year, fall and spring terms. Credit: fall term, five hours; spring term, three hours. Lectures or recitations covering physical diagnosis, ophthalmology, veterinary hygiene, and some sporadic diseases. Fall term, M T W Th F 8; spring term, T Th 8, S 9.

51. *OBSTETRICS AND DISEASES OF THE GENITAL ORGANS INCLUDING STERILITY AND ABORTION.* Third year, spring term. Credit five hours. Four lectures or recitations and one laboratory period a week. It is aimed in this course to give a general survey of the subject of obstetrics and to include a thorough consideration of the diseases of the genital organs including sterility, abortion, and other subjects related to pregnancy and parturition. Obstetrical exercises, pregnancy diagnosis, artificial insemination, and other clinical phases of the course are presented during the laboratory periods. Further clinical instruction in obstetrics is given in the ambulatory clinic.

52. *DISEASES OF LARGE ANIMALS.* Fourth year, fall and spring terms. Credit: fall term, two hours; spring term, four hours. Fall term, T Th 8; Spring term, M T W Th 8.

SPECIAL LECTURES. During the year, lectures on special topics in medicine will be given by eminent practitioners and teachers of veterinary medicine. These will form a part of the instruction in this department.

OPPORTUNITIES FOR RESEARCH. The activities of the department, aside from the instruction work, are devoted to research in connection with diseases of cattle, including mastitis, the phenomena of sterility and abortion in animals of breeding age, and of diseases of newborn calves. Opportunity is afforded for participation in the investigations by graduate students having acceptable preparation.

SURGERY

Professors, J. N. FROST, A. G. DANKS; *Internes*, J. D. WHEAT, R. W. BATCHELDER.

The instruction consists of classroom and laboratory work designed to afford symmetrical training for practice.

THE CLASSROOM WORK

Course 30 in General Surgery, Course 40 in General Pathology, and Course 31 in Surgical Exercises together constitute a group designed to impart a general knowledge of the principles of surgery, surgical pathology and therapeutics, and operative technique.

Course 32, a total of seventy-five lectures and recitations, is devoted to the surgery of the various regions of the body, and includes horseshoeing.

The College possesses an extensive collection of surgical instruments and apparatus of home and foreign make, illustrating the history of veterinary surgery as indicated by the means employed in the cure of diseases. The College has acquired since its foundation an extensive pathological collection illustrative of surgical diseases, to which has been added from the surgical and obstetrical clinics a large amount of material of value for teaching purposes. Further important additions are made by veterinary practitioners. The surgical collection is especially rich in specimens illustrating the diseases of the teeth.

CLINICS AND LABORATORY WORK

The laboratory work in the Department of Surgery includes Surgical Exercises and Clinics. In the course in surgical exercises the student is required to perform all the important operations on horses and cattle. The animal for a given exercise is placed under general anesthesia, which is maintained until the close of the period, when the subject is destroyed. The maintenance of chloroform anesthesia for three consecutive hours gives the student valuable experience in the technique of general anesthesia, for which there is a constantly increasing demand. Strict method is enforced in relation to asepsis and antisepsis, arrest of hemorrhage, suturing, and dressing, so that, while acquiring skill and knowledge of the appearance, resistance, and general character of living tissues, the student also forms proper habits in surgical procedure.

CLINICAL SURGERY OF THE LARGER ANIMALS

Students in charge of cases are required to give necessary daily attention.

The surgical building has thoroughly modern equipment in every respect. There is a spacious operating room fitted with operating table, stocks, and other conveniences, a commodious recovery room for chloroformed animals, and other accessory rooms for instruments, drugs, and other necessities. There is also a shoeing forge with a blacksmith in attendance. The entire structure is planned to secure the highest efficiency in aseptic and antiseptic surgery. Fourth-year students assist regularly in the surgical operations.

General and local anesthetics are regularly used in painful operations, and the student is taught to eliminate, as far as practicable, the element of pain in surgery. Instruments and apparatus of the

most approved pattern are kept directly at hand in the operating room, and the student becomes familiar with their good and bad points by actual use.

Special apparatus for investigation is supplied as needed. Advanced students are called upon to assist in the various investigations, and thus become not only more familiar with surgical manipulations but also inspired to study methodically and effectively the many questions in surgical pathology and therapeutics. They also become better prepared to cope promptly and properly with the many atypical cases constantly occuring in general practice.

30. *GENERAL SURGERY.* Third year, first term. Four recitations or laboratory periods a week. Professor DANKS. Prerequisites: Anatomy 1 and 2, Zoology 6, and Physiology 12.

31. *SURGICAL EXERCISES.* Three hours a week of laboratory work in surgical operations upon anesthetized animals. Third year, fall and spring terms. Professor DANKS and assistants. Laboratory fee, $20.

32. *SPECIAL SURGERY.* Third year, spring term. Five lectures or recitations a week. Professor FROST or Professor DANKS.

33. *JURISPRUDENCE.* Fourth year, spring term. One lecture a week. Lectures by a lawyer on the subjects of the expert witness, jurisprudence, and civil law; lectures by one trained in business administration on the subjects of accounting, business methods, etc.; and lectures on various practical subjects such as registration, selecting a place to practice, advertising, etc.

EXPERIMENT STATION

Professors, R. R. BIRCH, H. L. GILMAN, D. W. BAKER; *Assistant Professor*, J. H. WHITLOCK; *Assistant*, ————————.

61. *HEALTH AND DISEASES OF ANIMALS.* Arranged especially for students in the College of Agriculture. Fall term. Credit three hours. Not open to freshmen or to those who have had no course in animal husbandry. Lectures, M W F 11. *Veterinary College*. Professor BIRCH.

The course is designed to give the student a clear conception of the causes and nature of the diseases of animals, with suggestions for their prevention. Special epizootic diseases are included. Such information as is practicable is given for the treatment of slight injuries and for first aid in emergencies.

62. *ANIMAL PARASITOLOGY.* Second year, spring term. Credit three hours. M W F 8. Prerequisite courses: Pathology 40, 40a, and Zoology or Biology.

This is an introductory course with a limited time allowance and as such endeavors to provide the student with a knowledge of fundamental facts and principles about animal parasitisms. Emphasis is

given to the biological aspects of the subject such as the interrelations of host and parasite, the life cycle of the parasite, the epidemiological factors, and underlying principles of treatment and prevention rather than to nomenclature and morphology. The specific and detailed directions for the treatment of the principal parasitic diseases of domestic animals are given in the courses in Medicine and Small Animal Diseases and so needless repetition of such information is curtailed. The general principles of treatment which contribute to success or failure are thoroughly discussed. These principles include the manner in which drugs reach the parasites, the mechanism by which the death and removal of the parasite is accomplished, and the specific reaction between certain parasites and certain drugs. A comprehensive study of the parasitic diseases of the horse, cow, sheep, goat, pig, dog, cat, and certain wild animals of economic importance is arranged on the basis of the parasitism of the host rather than by the more conventional system of zoological affinities. The parasitisms of animals transmissable to man are discussed briefly. Professors BAKER, WHITLOCK, and guest speakers.

62a. *PARASITOLOGY LABORATORY.* Second year, spring term. Credit one hour. Section I, T 2–4:30; Section II, M 2-4:30. Laboratory fee, $3. A companion course to 62 with the same prerequisites.

A laboratory study of the helminth and arthropod parasites of domestic animals with particular emphasis on the identification and bionomics of the forms of veterinary importance. Professors BAKER and WHITLOCK.

63. *APPLIED PARASITOLOGY.* Third year, spring term. Credit one hour. Prerequisites, courses 62 and 62a.

An organized study of the parasitic diseases of domestic animals with particular emphasis on the features of diagnostic importance. Special attention will be given to the laboratory and postmortem techniques that are of value in applied parasitology. Study of field outbreaks of parasitic disease will be supplemented by artificial infections in order to demonstrate as many parasitic diseases to the student as possible. Professors BAKER and WHITLOCK.

64. *ADVANCED WORK IN ANIMAL PARASITOLOGY.* Fall and spring terms. Credit one to three hours, by arrangement. Prerequisites courses 62 and 62a. For advanced undergraduate and graduate students.

Special problems concerned with the parasites of domestic animals. Professors BAKER and WHITLOCK.

THE CLINICAL COURSES

Professors, MILKS, FROST, FINCHER, OLAFSON, STEPHENSON, DANKS, LEVINE; *Associate Professor*, ROBERTS; *Assistant Professors*, JOHNSON, GILLESPIE, RICKARD, KIESEL; *Assistants*, ZEPP, FABRICANT; *Internes*, WHEAT, BATCHELDER, FIELD, SCHIRMER.

The practical application of the student's basic knowledge of veterinary medicine to the clinical diagnosis and therapy of disease begins in the third year of his course. During that year he is required to take Clinical Orientation which introduces him to clinical work largely as an observer. His intensive training in clinical medicine and surgery begins in his fourth year, the greater part of which is devoted to actual handling of patients under close supervision of members of the clinical staff.

The clinical instruction is divided among four Departments as follows:

The Ambulatory Clinic is operated by the Department of Medicine and Obstetrics.

The Consulting Clinic is operated by the Department of Surgery.

The Small Animal Clinic is operated by the Department of Therapeutics and Small Animal Diseases.

The Poultry Clinic and the work in Autopsies and Clinical Pathology are conducted by the Department of Pathology and Bacteriology.

Information about the respective clinical divisions will be found under the course announcements of the Departments concerned. Only students who have completed the first two years of the veterinary curriculum will be admitted to any of the clinical courses.

Semester credits in clinical courses are not given, but students must complete all prescribed courses satisfactorily to be eligible for graduation.

201. *CLINICAL ORIENTATION.* Throughout the third year. Fall term, T 10, S 8; spring term, daily 11–12:30.

In the fall term methods of clinical examination will be demonstrated and selected cases from all the clinics will be presented and discussed. During the spring term the students will be assigned in groups to the daily clinics, acting as assistants and observers.

202. *CLINICAL CONFERENCES.* Throughout the fourth year. F 2–4.

These conferences will be attended by all members of the fourth-year class and by staff members representing not only the clinical but the pre-clinical or basic sciences as well. Students will be required to present reports on their studies of selected cases from the clinics and these will be criticized and discussed by the faculty members. In this way the special knowledge and viewpoints of the anatomist, biochemist, physiologist, pathologist, bacteriologist, and parasitologist, as well as that of the clinicians, will be brought to bear on problems of diagnosis and therapy.

203. *CLINICS.* Throughout the fourth year. Daily, including nights and Sundays when necessary.

During his fourth and final year the veterinary student is required

to spend his time, after 9 o'clock daily, studying and ministering to the ailments of patients. He is on call, night and day, during the entire year. For this reason he is not permitted to carry extra academic courses, and outside part-time employment is not accepted as a valid excuse for failure to meet his full responsibilities in these courses.

Under a plan of rotation, students are required to work in groups in the several clinics so they may acquire a varied experience. Work in none of the clinic divisions may be substituted for that in any of the others.

Work in clinical pathology and autopsies will be supervised by the Department of Pathology and Bacteriology. Such work is not regarded as separate courses but as fundamental parts of the clinical training. As a part of their clinic duties, students will be required to carry out, under the supervision of the clinical pathologist, such laboratory procedures as are indicated. If the patient dies the same students who attended him during life will be required to conduct the autopsy and to make any pathological, bacteriological, or biochemical tests that are necessary to provide complete information on the nature of the disease, the reasons for failure of the therapeutic procedures used, and the cause of death.

At the end of each term, the performance of each student in all the clinic divisions will be considered by the entire clinical staff, including the clinical pathologist, in a special meeting called for this purpose. Failure to do satisfactory work in any of the divisions will mean failure in the entire course.

Courses in the Veterinary Curriculum Given by Other Colleges of the University

COLLEGE OF ARTS AND SCIENCES

Chemistry 375. *ELEMENTARY ORGANIC CHEMISTRY.* First year, fall term. Lectures and laboratory. Five hours credit. Prerequisite, General Chemistry. Assistant Professor Cain and assistants. M W F S 9, *Baker* 207. Lectures, conferences, and discussion. Laboratory, Th 8–10:30, *Baker* 250. Laboratory fee, $15.

Zoology 6. *HISTOLOGY AND EMBRYOLOGY.* Fall and spring terms. Credit eight hours. Required of first-year students. The exercises each week are as follows: Fall term: Lectures, W F 12. Laboratory, W F 2–4:30. Spring term: Lectures, W F 9. Laboratory, W F 10:00–1:00. Professor Adelmann and Assistant Professor Wimsatt.

This course aims to provide the student with a practical knowledge of the normal structure and development of the tissues and organs of the animal body by the direct study of them in the laboratory. From time to time the ability of the student to recognize the normal structure is tested by the identification of unlabeled preparations. The laboratory work is supplemented by recitations, reviews, and lectures covering the general aspects of the subject.

COLLEGE OF AGRICULTURE

Animal Husbandry 1. *LIVESTOCK PRODUCTION.* First year, fall term. Credit three hours. Lectures, W F 10. *Wing A.* Laboratory, T 1:40–4. *Judging Pavilion.* Professors MILLER, SALISBURY, TURK, and WILLMAN. Laboratory fee, $2.

Introduction to types, breeds, judging, and management of livestock.

Animal Husbandry 10-v. *THE PRINCIPLES AND PRACTICE OF LIVESTOCK FEEDING.* Second year, spring term. Credit 4 hours. Professor LOOSLI.

In this course consideration is given to the basic principles of livestock nutrition, nutritive requirements for various body functions, composition and nutritive value of feeds, and the computation of practical livestock rations.

Poultry Husbandry 124. *ANIMAL GENETICS.* Second year, spring term. Lectures, T Th 10. Laboratory and discussion, W 2-4:30. Credit three hours. Rice 100. Laboratory fee, $2. Professor HUTT.

Principles of Genetics; sex determination and sex linkage; inherited characters in domestic animals, with special reference to lethal genes and genetic resistance to disease; progeny-testing; inbreeding and cross-breeding.

Botany 3. *POISONOUS PLANTS.* Third year, fall term. Credit one hour. Lectures and demonstrations. Emphasis will be given to the recognition of the principal kinds of stock-poisoning plants. *Plant Science* 353. Laboratory fee, $1. Professor W. C. MUENSCHER.

DEPARTMENT OF CLINICAL AND PREVENTIVE MEDICINE

27. *FUNDAMENTALS OF ROENTGENOLOGY.* Third year, spring term. Credit one hour. A brief survey of x-ray physics, technique of operation of modern equipment, x-ray protection, darkroom procedure, and fundamentals of diagnosis. Professor SHOWACRE.

APPENDIX A

Openings for Veterinarians in America

The field of veterinary medicine offers excellent opportunities for those who have a liking for medicine and are interested in animals. The work often is rigorous. The compensation varies greatly. One can seldom become wealthy as a veterinarian, but intelligent and conscientious service usually is rewarded by an adequate income. Those who are genuinely interested in the work have the satisfaction of serving a useful purpose; those who are looking for great financial return are advised to look elsewhere.

Some of the opportunities for veterinary graduates are recited below:

I. Private Practice.

Veterinary practice is a wide field with excellent opportunities for well-qualified persons. Practice may be (a) general, in which the individual offers his services in dealing with all species of animals, (b) small animals, in which only household pets are treated, or (c) special, in which only certain specific conditions are handled. About two-thirds of the graduates of veterinary colleges sooner or later become private practitioners.

II. Salaried Positions.

About one-third of veterinary graduates obtain positions on a salary basis.–The majority of these are with the federal, state, county, and municipal governments, the remainder with private corporations.

A. private corporations.

Many veterinarians are employed by the large milk companies, by large stock farms, by serum and virus manufacturers, and by drug manufacturers.

B. governmental agencies which employ graduate veterinarians are:

1. *Bureau of Animal Industry, U. S. Department of Agriculture.*

This Bureau employs more veterinarians than any other single agency. The greatest number are engaged in meat inspection, but many act as livestock agents and inspectors, inspectors in quarantine stations, and inspectors in biologic production plants, others are engaged in research and investigations in laboratories and in the field.

2. *Veterinary Corps, U. S. Army.*

The Veterinary Corps of the Army demands a limited number of veterinarians as replacements. Appointment is by examination

and the initial rank is first lieutenant. Advancement is definitely provided for according to the period of service.

3. *State Governments.*

Every state has a state veterinarian or similar officer, usually in the department of agriculture, whose duties are to look after the health of animals by enforcing laws and regulations drawn for this purpose. In many states the state veterinarian has a corps of assistant veterinarians.

Many state health departments have one or more veterinarians on their staffs to advise on animal diseases that have significance in human health and to investigate outbreaks of such diseases.

Practically every agricultural school has a veterinary department, some of these employing five or six veterinarians as research workers and teachers. The veterinary colleges of the country have staffs of twenty to thirty veterinarians each.

4. *Municipal Governments.*

Most cities employ graduate veterinarians on a full-time basis, and many towns and villages on a part-time basis, as members of their health departments. The duties of these men usually are connected with the sanitary control of meat and milk.

APPENDIX B

Legal Requirements To Practice Veterinary Medicine In The United States

Before one can practice veterinary medicine in the United States he must obtain a license from the state or states in which he locates. This license generally is issued by the department of education or the department of agriculture on the basis of an examination set by a veterinary licensing board. Some states issue licenses without examination by reciprocity when the applicant has been licensed in other states.

Information about the licensing laws of the various states can usually be obtained by directing a letter of inquiry to the department of agriculture or the state veterinarian in the state capital.

In New York the licensing agency is the State Education Department, Albany, New York. Examinations are given semi-annually, in January and June in Ithaca, New York. Applicants are required to furnish evidence of adequate pre-professional as well as professional education, of a good moral character, and of being at least 21 years of age. Application for the examination must be filed at least 15 days before the scheduled date, and must be accompanied by a fee of ten dollars. Before a licensee can legally undertake practice in New York his license must be duly registered by the county clerk in the county in which his place of business is located.

CATALOGUE OF STUDENTS

GRADUATE STUDENTS

1945–46

Angstrom, Clement I., D.V.M., *Odessa.*
Fabricant, Catherine, B.S., *Ithaca.*
Fabricant, Julius, B.S., V.M.D., *Ithaca.*
LeGrow, William R., D.V.M., *Guelph, Ont.*
McBee, Louise A., B.S., *Ithaca.*
McCandless, Esther L., B.S., *New Cumberland, Pa.*
Rankin, A. D., D.V.M., M.S., *Ithaca.*
Rickard, Charles G., D.V.M., *Ithaca.*
Schmidt, Joan, A.B., *Ithaca.*
Woodward, Barbara A., A.B., *Summit, N. J.*

1946–47

Fabricant, Julius, B.S., V.M.D., *Ithaca.*
LeGrow, William R., D.V.M., M.S., *Guelph, Ont.*
McBee, Louise A., B.S., *Ithaca.*
McCandless, Esther L., B.S., M.S., *New Cumberland, Pa.*
McKercher, Delbert G., B.V.Sc., M.A., *Moose Creek, Ont.*
Monlux, William S., D.V.M., *Ithaca.*
Rankin, A. D., D.V.M., M.S., *Ithaca.*
Smith, Dorothy F., B.S., *Ithaca.*
Zepp, Clarence P., jr., D.V.M., *New York City.*

FOURTH YEAR, CLASS OF 1946

Bardwell, Robert Edward, *Lexington, Ky.*
Batchelder, Roger William, *Ithaca.*
Brightenback, George Edward, *Union City, N. J.*
Brown, Philip Raymond, *Vassalboro, Me.*
Cohen, Hunter, *Ithaca.*
Delano, Ray Osborne, jr., *Cleveland, Ohio.*
Denk, Adolph John, *Pearl River.*
Doremus, Henry Meade, *Towaco, N. J.*
Dorn, Saul James, *Philadelphia, Pa.*
Field, Robert Athans, *New York City.*
Forsythe, Rodney Anson, *Oakfield.*
Fountain, Edmund Louis, *Gloversville.*
Haberman, Julius Jay, *Brooklyn.*
Hoffmire, James Henry, *Trumansburg.*
Icken, Donald Frederick, *Blauvelt.*
Irving, Elwyn Laverne, *Aurora.*
Jenkins, Charles Murray, *New Paltz.*
Kaplan, William, *New York City.*
Kirk, Robert Warren, *Stamford, Conn.*
Love, Thomas Jack, *Montour Falls.*
Lynch, Donald R., *Kent.*
McAvoy, Byron Gotham, *Clayton.*
McCann, John William, *Oneida.*
Meade, Janet Ann, *Scarsdale.*
Nusbaum, Sidney Robert, *Utica.*
O'Brien, Robert William, *Constableville.*
Ohlhorst, Roy Hugo, *Scarsdale.*
Prier, James Eddy, *Staten Island.*
Rost, Robert Christopher, *Westfield, N. J.*
Rubin, Gerard Jerry, *Brooklyn.*
Ryan, William Gerard, *Auburn.*
Salk, Herman Maurice, *New York City.*
Salk, Sylvia Burg, *New York City.*
Sams, Jeanette, *Anchorage, Ky.*
Schenholm, Carl Lennart, *Columbia, N. J.*
Schirmer, Robert George, *Dansville.*
Steele, John Rae, *Schodack Landing.*
Tanneberger, Frank John, *Flushing.*

FOURTH YEAR, CLASS OF 1947

Bailey, Jack William, *Madison, Wis.*
Bonelli, Benjamin Parish, *Saugus, Calif.*
Campbell, Donn Brownell, *Chappaqua.*
Carsley, Malcolm Bernard, *Pittsfield, Mass.*
Cooper, Cecil Devour, *Avenal, Calif.*
Davis, F. Langdon, jr., *Rhinebeck.*
Drazek, Francis Joseph, *Hagaman.*
Feldman, Gilbert Jay, *Brooklyn.*
Fish, Richard Alexander, *Salt Point.*
Floyd, J. Mitchell, *Stamford, Conn.*
Graves, John Henry, *Hartsville, Pa.*
Hallenbeck, Mary Catherine, *Hoffman.*
Hecht, Estelle, *Brooklyn.*
Jones, Ruth Elizabeth, *Staten Island.*
Kaplan, Werner Josef, *New York City.*
Kemen, Mathias John, jr., *Franklin.*
Kendrick, John Wesley, *Washington, D. C.*
Leahy, John Robert, *Whitney Point.*
Mackey, Edwin Deforest, *Locke.*
Neserke, Edward Irvin, *Baltimore, Md.*
Ormsbee, Robert Wayne, *Stockton, Calif.*

FOURTH YEAR, CLASS OF 1947—(Concluded)

Rhode, Edward Albert, jr., *Amsterdam.*
Robinson, Elmer LeRoy, *Ballston Spa.*
Rothblatt, Leon, *New York City.*
Rubin, Harry, *New York City.*
Safanie, Alvin Harold, *Ancram.*
Sauter, Robert Anthony, *Bronxville.*
Scholtz, Eugene Rudolf, *Nyack.*
Stevens, Alan Douglas, *Nashua, N. H.*
Taylor, Clark Alexander, *Schenectady.*
Taylor, William E., *Morrisville.*
Whallon, Jane Elizabeth, *Kenmore.*

[There was no class of 1948.]

SECOND YEAR, CLASS OF 1949

Baker, Lyle Adelbert, *Knoxville, Pa.*
Birchard, Raymond Finney, *Cambridge Springs, Pa.*
Bonn, George Robert, *Yonkers.*
Buckley, Donald Faust, *Brewster.*
Cole, Bennett Jay, *Brooklyn.*
Cosgrove, Albert Sippel, *Spencerport.*
Dickinson, Bruce Richard, *Ontario.*
Dingley, Dana Coolidge, *Farmington, Me.*
Duboveck, John, *Margaretville.*
Fagan, Mortimer Moses, *Brooklyn.*
Garrison, Stanley Earl, *Ballston Lake.*
Gay, William Ingalls, *Franklin.*
Glick, Stanley, *Mountaindale.*
Goldman, Robert Alfred, *Jamaica.*
Greene, William Arthur, *New Berlin.*
Grogan, Joseph William, *Springfield, Mass.*
Hamilton, Christabel, *Oak Park, Ill.*
Heath, Richard Louis, *Upper Montclair, N. J.*
Hsia, Ting-You, *Tinghai, Chekiang, China.*
Jensen, Wayne Ivan, *Burwell, Nebr.*
Lehman, Walter Edward, *Castorland.*
Lewis, Anson Comstock, *Pine City.*
Lunna, Richard Carlton, *Newport Center, Vt.*
McCormick, John Elliott, *Snyder.*
McEnerney, Philip John, *Scarsdale.*
Miller, Albert Wank, *Sauquoit.*
Osgood, Muriel, *Cumberland Center, Me.*
Quimby, Herbert Hugh, *Norwood.*
Raemsch, Robert Paul, *Syracuse.*
Reddick, Harry E., jr., *Santa Paula, Calif.*
Reinhard, Karl Raymond, *Coplay, Pa.*
Shapiro, Moe, *New York City.*
Smith, Marianne Frances, *New York City.*
Vargoshe, Richard Edwin Wheeler, *Shelton, Conn.*
Wang, Hung Chang, *Chinkiang, China.*
Ward, Gerald Merritt, *Towanda, Pa.*
Webster, Donald Eugene, *Ithaca.*
Wheaton, James Robert, *East Rochester.*
White, Raymond Hamilton, *Beaver, Utah.*
Wight, James Beattie, *Hilo, Hawaii.*
Williamson, Jane Louise, *Fair Lawn, N. J.*
Yasgur, Isidor, *Monticello.*

FIRST YEAR, CLASS OF 1950

Adsit, Milton E., *Baldwinsville.*
Aldrich, Stanley M., *Babylon.*
Beakman, LaVerne M., *Lockport.*
Blackstone, Donald R., *Washburn, Me.*
Crispell, Donald H., *Slaterville Springs.*
Deutsch, Henry J., *Brooklyn.*
Durniak, Daniel, *Germantown.*
Fueschsel, Robert E., *Port Washington.*
Haenel, William F., *Ithaca.*
Hammond, James F., *Dansville.*
Hannigan, Daniel J., *New York City*
Harris, Robert J., *Macomb, Ill.*
Hixon, Alvin E., *Ithaca.*
Holzworth, Jean, *New York City.*
Jones, Eugene M., *Forestville.*
Jones, Stuart V. S., *Norwich.*
Lawrence, George E., *Norfolk, Va.*
Loomis, Vader M., *Mannsville.*
McCarthy, Gerald E., *Niagara Falls.*
McKenna, Vincent E., *New York City.*
Markham, Claron E., *Lowville.*
Miller, Wilson L., *Yonkers.*
Morris, Robert G., *Montour Falls.*
Ostrander, John P., *Albany.*
Padgett, Paul W., *Delhi.*
Palmer, Lynn G., *Carthage.*
Peckham, Malcolm C., *Taunton, Mass.*
Phillips, Seeley M., *Central Valley.*
Puleo, Joseph, *Buffalo.*
Rich, John W., *Niagara Falls.*
Rockwell, Stewart R., *Susquehanna, Pa.*
Schmidt, Milton, *Larchmont.*
Sickles, Walter J., *Pearl River.*
Siegrist, Jacob C., *Baltimore, Md.*
Simon, Harold F., *East Syracuse.*
Simon, Norman, *Staten Island.*
Stack, Robert J., *Syracuse.*
Szlachta, Henry L., *Paris.*
Tuthill, Dallas B., *Mattituck.*
Uhlendorf, Albert H., *Hollis.*
Van Aken, John L., *Amsterdam.*
Wicks, George W., *New Paltz.*
Zimmerman, Manuel, *New York City.*

SPECIAL STUDENTS

Blaney, Arthur James, *Smock, Pa.*
Daniels, Willard Herbert, *Middletown, Conn.*

PRACTITIONERS COURSE

Bryan, Donald I., D.V.M., *Mt. Holley,* Milks, Richard V., D.V.M., *Ithaca N. Y.*

POSTWAR REFRESHER COURSES

The following veterinarians, veterans of World War II, attended Postwar Refresher Courses in the Veterinary College in 1946.

FIRST COURSE

(January 7 to February 16, 1946.)

Allen, Robert O., Cornell '38, *Binghamton, N. Y.;* Baker, Jack E., Cornell '37, *North Hollywood, Calif.;* Beckcom, Edwin A., jr., Texas '38, *South San Antonio, Texas;* Burch, George E., Cornell '36, *Glens Falls, N. Y.;* Chazey, Edward P., Michigan '41, *Brooklyn, N. Y.;* Eagelman, James G., Pennsylvania '37, *Wernersville, Pa.;* Ebertz, C. D., Cornell '35, *Auburn, N. Y.;* Erdheim, Morris, Cornell '39, *Chicago, Ill.;* Faatz, Gerald A., Cornell '39, *Weedsport, N. Y.;* Ferris, Joseph, Cornell '41, *Ithaca, N. Y.;* Folsom, Robert H., Ohio '43, *Minerva, Ohio;* Frank, Charles B., Pennsylvania '38, *Mount Joy, Pa.;* Frock, Irwin W., Ohio '35, *Reisterstown, Md.;* Haley, John S., Kansas '36, *Topeka, Kans.;* Hughes, Donald V., Cornell '37; *Middletown, N. Y.;* Jeffers, Boyd, Indiana '23, *Lexington, Ky.;* Jewett, Robert F., Cornell '38, *Cortland, N. Y.;* Kelsey, Carleton R., Cornell '40, *Alpine, N. Y.;* Larson, Raymond E., Pennsylvania '38, *Newington, Conn.;* Lawrence, Robert P., Pennsylvania '30, *Verona, N. J.;* Lightcap, George C., Iowa '41, *Lexington, Ky.;* Miller, John W., Cornell '38, *Albany, N. Y.;* Perkins, Frederick E., Michigan '42, *Norfolk, Va.;* Risley, Henry B., Cornell '41, *Bethlehem, Conn.;* Siver, Dougal H., Cornell '41, *Van Etten, N. Y.;* Snook, George W., Cornell '38, *Baltimore, Md.;* Stafford, Charles D., Kansas '35, *Novato, Calif.;* Steffen, Rudolph, Cornell '34, *Horseheads, N. Y.;* Tanenbaum, George G., Kansas '39, *New York City;* Terrill, Lloyd H., Ohio '41, *Ridgeway, Ohio;* Tierney, William F., Cornell '35, *Trumansburg, N. Y.;* Todd, William C., Pennsylvania '38, *Wildwood, N. J.;* Viergutz, Herbert E., Colorado '39, *Detroit, Mich.;* Whitehead, Roland E., Cornell '44, *Monroe, N. Y.*

SECOND COURSE

(June 3 to June 22, 1946)

Aaron, Edward, Texas '43, *Rego Park, N. Y.;* Adolph, William H., jr., Cornell '43, *Ithaca, N. Y.;* Boldt, Vincent L., Cornell '39, *Marilla, N. Y.;* Brumble, George H., Texas '40, *Fredericksburg, Va.;* Cain, H. Driscoll, Cornell '35, *Herring, N. Y.;* De Milly, John W., jr., Alabama '39, *Tallahassee, Fla.;* Droleskey, Edward A., Texas '41, *Queens Village, N. Y.;* Droleskey, Albert H., Texas '43, *Queens Village, N. Y.;* Downey, Keith W., Kansas '42, *Appleton, Wis.;* Feldman, Murray, Kansas '39, *New York City;* Gilmour, Judd T., Cornell '42, *Mount Vernon, N. Y.;* Holmberg, Gerald W., Ohio '36, *Nashua, N. H.;* Lindley, William H., Kansas '33, *Vicksburg, Miss.;* Maxwell, Henry, Cornell '41, *Albany, N. Y.;* Michaels, Albert M., Cornell '39, *Arverne, N. Y.;* Pallister, Eric F., Ontario '39, *Quebec, P. Q., Canada;* Richards, John W., jr., Cornell '43, *White Haven, Pa.;* Rodgers, Calvin M., Ohio '34, *Avon, Ill.;* Seagers, William J., Cornell '35, *Knoxville, Pa.;* Stepp, Forrest A., Iowa '43, *Union City, Tenn.;* Sussman, Oscar, Michigan '40, *Orange, Conn.;* Van Deusen, Carlisle W., Cornell '44, *Malone, N. Y.;* Williams, Walter J., Cornell '36, *White Plains, N. Y.;* Wuori, Leo A., Cornell '42, *Ithaca, N. Y.*

INDEX